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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,809	06/28/2001	Manish S. Prabhu	MS174294.1	7096

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EXAMINER

TRUONG, LECHI

ART UNIT PAPER NUMBER

2194

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/893,809

Applicant(s)

PRABHU ET AL.

Examiner

LeChi Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-27 are presented for the examination.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kind (US. Patent 6,415,434 B1) and further in view Hopmann et al (US. Patent 6,944,642 B1).

**As to claim 1**, Kind teaches the invention substantially as claimed including: data type (target method 100, col 3, ln 34-40/ ln 57-61, col 10, ln 32-36/ ln 49-54/ col 4, ln 40-55, Fig. 1), aspect (parameter, data type for each parameter, col 3, ln 34-40/ ln 57-61), mismatched (if none of the methods having the same name and number of parameters as the target method, col 10, ln 44-47), a data type identifier adapted (method get Method 112, col 4, ln 45-55/ Fig. 1/ type checking , col 2, ln 55- 60), resolvable data type (resolved method 116, Fig.1), identify( determine, col 4, ln 45-55), a data type revolver adapter( a revolver 104, ln 4, col 35-44), resolving the mismatched data type in accordance with the at least one common aspect( if none of the methods having the same name and number of parameters as the target method... a candidate method is a method comprising parameter such that data type of parameter of the

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target method can be assigned to a data type of a corresponding parameter of the same candidate method, col 10, ln 43-53), a data type identifier that identifier whether the first entity and the second entity have a mismatched resolvable data type( col 10, ln 35-40), the at least one common aspect(a data type of each of the parameters of the exact method is the same data type of a corresponding parameter of the target method, col 3, ln 34-40/ parameter that exactly match the parameters of the target method, col 10, ln 37-41), a first entity ( a target method, col 4, ln 40-45), the second entity( an application programming interface file 128, col 4, ln 40-45), interactions between a first entity and a second entity( the target method call the method in the file 128 to implement the class of the target method, col 4, ln 40-45), where the entities have a mismatches data type (if there is no exact method, col 4, ln 48-50 ).

Kind does not explicit teach the revolver receives the mismatched data from the identifier. However, Hopmann teaches the server recognizes that the conflict exists... if conflict cannot be resolve by server... the server provide information about the conflict .. the client attempt to resolve the conflict, col 3, ln 20-23/ ln 26-28/ ln 35-37/ col 11, ln 40-45/ the server is the identifier which detect the conflict (mismatch) and the client is the revolver which receives the conflict from the server and solves the conflict).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Kind and Hopmann because Hopmann's the revolver receives the mismatched data from the identifier would improve the flexibility of Kind's system by minimizing the amount of network bandwidth needed to resolve the conflict.

**As to claim 2**, Kind teaches a client (client machine 300, Fig. 3), a server (server, Fig. 3).

**As to claim 3**, Kind teaches at least one common aspect comprising data and behavior (Object 1 of type circle, col 11, and ln 47-55/ X int XA, int XB, int XC, col 10, and ln 60-64).

**As to claim 4**, Kind teaches the metadata facilitates identifying (col 10, ln 45-47).

**As to claim 5**, Kind teaches a metadata reader adapter (accessing 120, col 4, ln 50-55), metadata (candidate method, col 4, ln 55), a resolvable data type (target method parameter, col 4, ln 50-55), attribute identifying subsystem (col 4, ln 45-50), an attribute populating subsystem (inheritance relationship and conversion tables 118, col 4, ln 50-55, Fig. 1)

**As to claim 6**, Kind teaches a proxy (a proxy, col 6, ln 48-50), data type is adapted to be incrementally extensible (col 6, ln 48-52).

**As to claim 7**, Kind teaches an as need basis (a marker that indicated whether serialization is allowed on a given data type, col 7, ln 30-34).

**As to claim 8**, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above. In additional, Kind teaches creates a new data type that comprise the at least one common aspect (obtain a list of candidate methods that determine if each target method parameter can be assigned to a corresponding candidate methods, col 4, ln 53-55/ col 5, ln 1-5/col 10, ln 49-55).

**As to claim 9**, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above. In additional, Kind teaches comparing (match, col 10, ln 30-45), a first datatype (the target method, col 10, ln 34-35), the second datatype (the exact method or the best method, col 10, ln 34-40/ col 56-65), an object of a third data type (the first data type is assigned to a second data type, col 10, ln 55-64/ a candidate methods is a method comprising parameters, col 10, ln 45-64), feature common (inherent, col 10, ln 55-60), creating an object of third data

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type, where the third data type comprise the aspect common to the first data type and the second datatype( a set of candidate method is obtained where a candidate method is a method where a datatype of each parameter of the target method can be assigned to a data type of a corresponding parameter of the candidate methods. Each candidate method is score to determine a methods which most closely matches the target method... the candidate method is the best method, col 6, ln 66 to col 5, ln 1-8/ col 3, ln 56-68). The second data type is the method can be used to implement the method of the target class, if is the second data type is the exact method or the best method.

**As to claims 10, 11,** they are apparatus claims of claims 2,3; therefore, they are rejected for the same reasons as claims 2,3 above.

**As to claims 12, 13,** Kind teaches identifying, comparing one or more attributes or method associated with first data type and the second data type (col 11, ln 46-55/ col 12, ln 10-20/ col 10, ln 35-45).

**As to claim 14,** it is an apparatus claim of claim 5; therefore, it is rejected for the same reason as claim 5 above.

**As to claim 15,** Kind teaches one or more method link (a first data type can be assigned to second data type, col 10, ln 55-62).

**As to claims 16, 17, 18,** they are apparatus claims of claims 6, 7; therefore, they are rejected for the same reasons as claims 6,7 above.

**As to claim 19,** it is an apparatus claim of claim 9; therefore, it is rejected for the same reason as claim 9 above.

**As to claims 20, 21, 22**, they are apparatus claims of claims 6,7; therefore, they are rejected for the same reasons as claims 6,7.

**As to claim 23**, Kind teaches first data type (a target method, col 11, ln 46-56), a first field contain information concerning attributes associated with first data type (parameter, col 10, ln 50-55/ parameter Obj 1, col 11, ln 46-56), where the first datatype is incrementally extensible and the attribute are loaded on an as need basis (when object is serialized, some information about its class is rerialized with it so the the correct class file can be loaded when the object is deserialized( col 9, ln 30-35)/ passes the object reference, method name and method parameters( as individual objects) method for sesolving the target method herienafar referred to as the resolver 420( col 10, ln 10-15). The attribute are loaded on an as-need basis when the attribute(object reference, method name and method parameters) is loaded for resolving the target method. The first data type is increametally extensible since the first datatype can be convert to the second datatype( col 10, ln 57-61), a marker that indicated whether serialization is allowed on a given data type, col 7, ln 30-34), one or more second fields (a candidate method is a method comprising parameter, col 10, ln 49-54/col 11, ln 46-55), information concerning method (col 10, ln 49-54/ col 11, ln 46-55), associated with first data type (Circle is a subclass of Shape, col 11, ln 35-40), resolved with a second data type having at least one common aspect with the first data type( col 10, ln 50-55/ col 11, ln 60-65/ col 10, ln 38-46/ col 4, ln 51-56).

**As to claims 24, 25**, Kind teaches one or more third fields / four fields (a list of candidate method, col 10, ln 45-50), in formation concerning one or more data type (col 10, ln 55-60).

**As to claims 26, 27**, they are apparatus claims of claims 19, 22; therefore, they are rejected for the same reasons as claims 19, 22 above.

**Response to the argument:**

3. Applicant amendment filed on 9/03/04 has been considered but they are not persuasive:

Applicant argued in substance that :

(1) “ Kind does not teach or suggest creating an object of a third data type, where the third data type comprises the at least one aspect common to the first data type and the second datatype ”.

( 2) “ Kind fails to teach or suggest one or more first fields containing information concerning attributes associated with a the first datatype, where the first datatype is incrementally extensible and the attribute are loaded on an as need basis”

4. Examiner respectfully disagreed with Applicant's remarks:

As to the point (1), Kind teaches a set of candidate method is obtained where a candidate method is a method where a datatype of each parameter of the target method can be assigned to a data type of a corresponding parameter of the candidate methods. Each candidate method is score to determine a methods which most closely matches the target method... the candidate method is the best method, col 6, ln 66 to col 5, ln 1-8/ col 3, ln 56-68). The set of candidate method is an object of third datatype. The second data type is the method can be used to implement the method of the target class, if is the second data type is the exact method or the best method.

As to the point (2), Kind teaches When object is serialized, some information about its class is serialized with it so the the correct class file can be loaded when the object is deserialized( col 9, ln 30-35)/ passes the object reference, method name and method parameters( as individual objects) method for resolving the target method referred to as the resolver 420( col



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10, ln 10-15). The attribute are loaded on an as-need basis when the attribute(object reference, method name and method parameters) is loaded for resolving the target method. The first data type is increamentally extensible since the first datatype can be convert to the second datatype( col 10, ln 57-61).

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272 3767. The examiner can normally be reached on 8 - 5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomson, William can be reached on (571) 272 3718. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

November 23, 2005



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